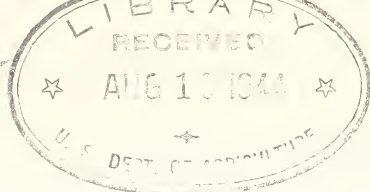


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**FIRST ANNUAL REPORT OF THE MANAGER OF THE  
FEDERAL CROP INSURANCE CORPORATION, 1939**

UNITED STATES DEPARTMENT OF AGRICULTURE,  
FEDERAL CROP INSURANCE CORPORATION,  
*Washington, D. C., September 13, 1939.*

HON. HENRY A. WALLACE,  
*Secretary of Agriculture.*

DEAR MR. SECRETARY: Herewith is transmitted the first annual report of the Federal Crop Insurance Corporation for the fiscal year ending June 30, 1939, which covers the period during which "all-risk" crop insurance for wheat was introduced to the wheat growers of the Nation.

As you know, the insurance program for wheat was undertaken as an experiment to determine the feasibility of insurance as a means of protection for farmers against unavoidable crop failure. In line with this purpose, we have endeavored to reflect in this report that experience which has a particular bearing on the problems which were met, both from an administrative and insurance standpoint and what steps have been taken to solve them. The report is necessarily incomplete as to results and conclusions since the crop insurance program will not have ended a full cycle of operations until all losses in connection with the 1939 crop have been adjusted. However, the preliminary results and analysis of the program on the basis of its progress thus far have made it possible to improve the 1940 program now being introduced both from an actuarial and administrative standpoint.

This report is submitted with a recommendation that it be printed.

Sincerely yours,

LEROY K. SMITH, *Manager.*

**CONTENTS**

	Page		Page
Crop insurance in 1939.....	1	Wheat operations.....	11
Operating experience.....	3	Establishing basic markets.....	12
Taking the program to the field.....	4	Standard storage rates.....	13
Early responsibility for the administration.....	4	Payment of indemnities.....	15
Presentation of the program.....	5	The actuarial basis for wheat-crop insurance.....	16
Applications written and policies completed.....	6	Basis for the 1939 program.....	16
Appraisal of participation.....	6	Yields and rates for insurance contracts.....	17
Adjustment of losses.....	7	Appraisal of the 1939 program.....	18
Major field problems.....	8	Improvement of 1940 program.....	19
Changes in field administration.....	11	The 1940 actuarial approach.....	19
		Need for further research.....	21
		Financial report.....	23

**CROP INSURANCE IN 1939**

With the harvest of the 1939 wheat crop under way, the Federal Crop Insurance Corporation is now completing the first year of an experimental program designed to make "all-risk" crop insurance available

to wheat growers and to make a field test of insurance principles as applied to growing crops.

The Federal Crop Insurance Corporation was established as an agency of and within the Department of Agriculture under the Federal Crop Insurance Act, which was title V of the Agricultural Adjustment Act of 1938, as approved February 16, 1938. The Corporation was authorized to insure growing wheat, commencing with the crop planted for harvest in 1939. Immediately after the approval of the act, a board of directors, a manager, and other personnel were appointed. Regulations and procedures embodying a comprehensive wheat-insurance plan were drawn up for offering crop insurance to wheat growers in all States and counties where wheat is generally grown.

In developing its program a large amount of information and data were available to the Corporation from past research carried on by the Bureau of Agricultural Economics of the Department of Agriculture, from the experience of private insurance companies which had experimented with crop insurance, from records of the Agricultural Adjustment Administration, and from the study made by the President's Committee on Crop Insurance.

The basic policy of the crop insurance program was guided by the general plan for crop insurance as developed in the report of that committee and as authorized by the act. Also, conclusions drawn from the experience of the Department in conducting other agricultural programs contributed much to the formulation of this policy. An outstanding consideration in policy making was the clear implication that crop insurance for wheat was to be regarded as an experiment, the results of which would measure the possibility of insurance for additional crops.

From this ground work the Corporation was able to establish definite policies to be followed and to set goals toward which the program should be steered. The principal points by which the course of the program was charted are as follows:

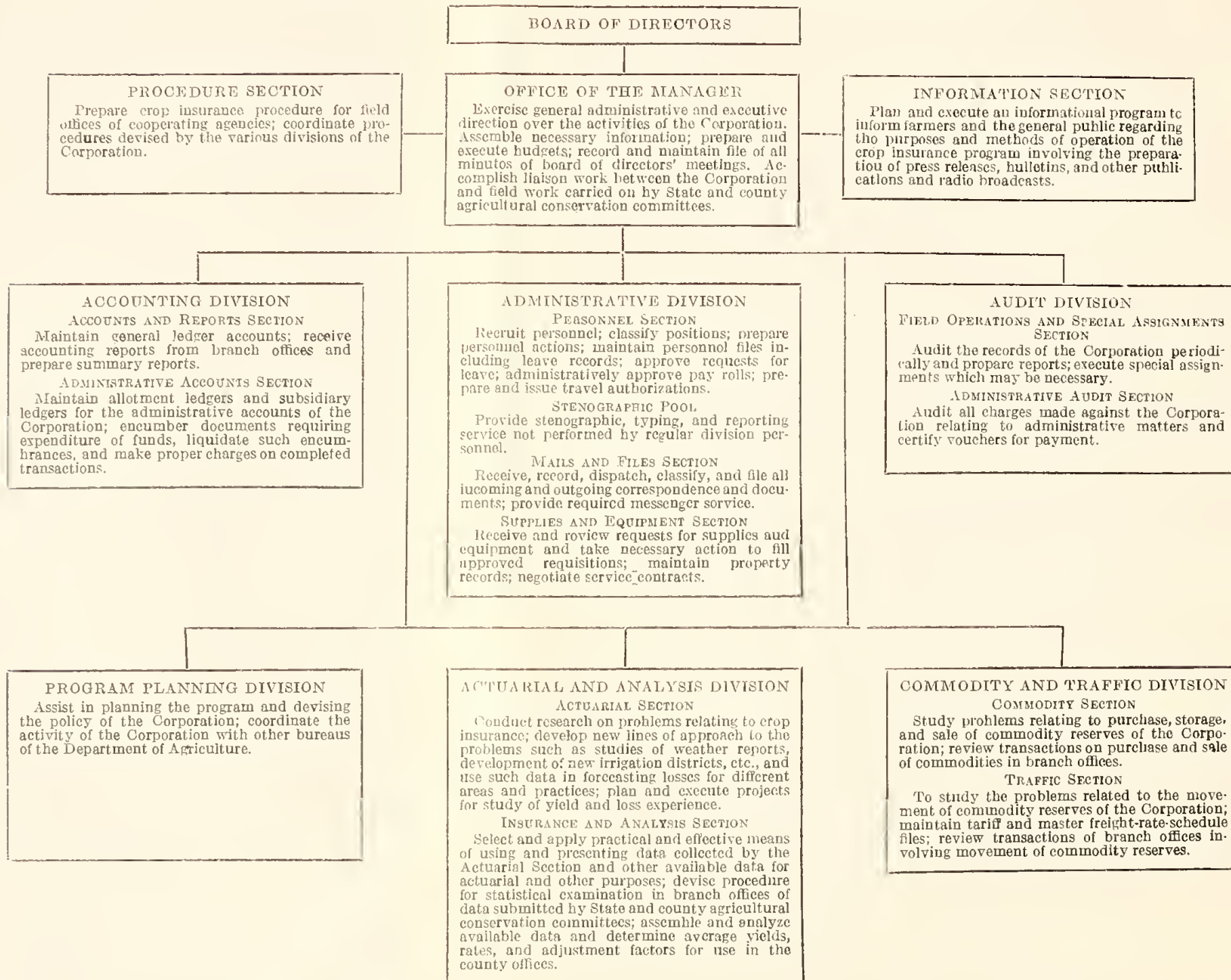
- (1) The relatively simple elements of the basic crop-insurance plan should be maintained in presenting the working program in the field. Procedures, forms, inspections, and particularly reports required of the grower, should be kept at a minimum. It was felt that any extraneous elements which might decrease the possibility of obtaining clear-cut results should be kept out of the program.

- (2) The insurance principles on which the program is based should have free play. The actuarial calculations should be regarded as scientific data, not subject to change, except for correction of error, or introduction of new information. Also, for the protection of these data, it was determined that the insurance should be written before the crop had grown sufficiently to permit any selection of risk. Further, it was determined that it was highly advisable that the premiums should be paid before the insurance had become operative on farms, thus eliminating the danger that insurance would be taken out most frequently on those farms where the certainty of risk appeared before the policy was in force.

- (3) It was considered essential that the program obtain a wide and representative distribution. Without an adequate spread of the risk, an unusual regional crop failure might seem to upset the actuarial basis of the program. Also, it was a duty of the Corporation to



UNITED STATES DEPARTMENT OF AGRICULTURE, FEDERAL CROP INSURANCE CORPORATION  
FUNCTIONAL CHART—DEPARTMENTAL SERVICE, JULY 1, 1939





make the insurance available to as many producers as possible, to demonstrate its operation in all wheat-growing areas under varied conditions, and to collect as much information as possible regarding yields and losses.

(4) It was considered desirable to integrate the operation of the program with other action programs of the Department in order that the crop-insurance program might be operated with a minimum of new personnel and that duplication of effort might be avoided wherever possible. Toward this end, the services of the State and county agricultural conservation program committees were used to present the program to the grower. The cooperation of these committees, trained in administering farm programs, in close touch with growers in their communities, and in possession of records covering acreages and yields on practically all farms in their counties, made it possible for the program to be inaugurated simultaneously in more than 1,300 wheat counties. The program was further coordinated with the agricultural conservation program by making it a policy to accept applications only on farms where soil conservation and good farming practices were being followed.

(5) Primary consideration should be given to the following procedure in making purchases of grain for the insurance reserve: (a) Preference was to be given to wheat in storage in federally licensed warehouses; (b) the price of wheat was to be within the competitive range of the market; and (c) wherever the foregoing requirements were met preference was to be given to farmer-owned cooperative organizations in making purchases.

### OPERATING EXPERIENCE

The original operating set-up at the beginning of the Corporation's activities consisted of:

- (1) The board of directors, appointed by the Secretary.
  - (2) The manager, appointed by the board of directors with the approval of the Secretary.
  - (3) An executive office in Washington, D. C., to conduct policy making and overall administration, direct educational work and research, and coordinate the work of this organization with that of other agencies.
  - (4) Three branch offices, at Kansas City, Mo., Minneapolis, Minn., and Washington, D. C., to administer the program in the major Winter Wheat Belt, the Spring Wheat Belt, and eastern areas, respectively. These branch offices were responsible for examining applications, computing premiums, collecting premium payments, writing policies, and operating the wheat-insurance reserves.
  - (5) Two sub-branch offices at Indianapolis, Ind., and Spokane, Wash., to assist in the purchase, storage, and sale of wheat for the insurance reserve in their respective areas.
  - (6) State supervisors working in cooperation with State and county agricultural conservation committees and county insurance representatives in obtaining applications, recording data for determination of insurable yields and premium rates, collecting premiums, and inspecting insured fields.
  - (7) County supervisors, especially employed, or members of the county agricultural-conservation-program committee, responsible to the Corporation with regard to financial operations and to the county committee with regard to educational and application work, to conduct sign-up of growers, accumulate information as to yields and rates, collect premiums, and inspect insured fields.
- Attention is called to the functional chart facing page 3 which more clearly shows the administrative relationship of the various divisions and sections of the Washington office.

Seven steps were involved in the program as originally laid down:

- (1) Taking the growers' applications, at which time either historic

or appraised yields were recorded for the farm for the base period; (2) approving the application, computing the premium payment in the branch offices, and notifying the grower of the amount due; (3) collection of premiums by county insurance representatives; (4) issuance of the policy by the branch office; (5) inspection of the insured fields; (6) notification by the farmer of any damage to the crop; and (7) adjustment and settlement of the loss.

The administrative machinery of the Corporation was of necessity established on the basis of the best estimate of the work that would be required, without benefit of any precedent. The tendency for growers to wait until the last few days before dead lines before applying for insurance, or before making premium payments, brought the work involved in checking applications, computing premiums, purchasing grain, and writing policies to an extremely sharp peak in the branch office serving the principal winter wheat States. This in turn necessitated large increases and hurried training of new personnel. For example, in the Kansas City branch office, which bore the brunt of this load, it became necessary to increase the number of employees from 400 to 800 in the course of 2 weeks. Considering the fact that the original group of workers was still inexperienced, this presented a major administrative problem.

Under such conditions, some wasted effort was inevitable, but important lessons were learned from a procedural and work-production standpoint. As a result of this initial experience, the Corporation has made many administrative improvements that will permit the handling of insurance contracts to proceed more smoothly and economically. Schedules of sign-up in the field have been moved ahead to spread the flow of applications over a long period. The elimination of several steps in the process of writing insurance has been made possible under new procedures which will be discussed later. The number of branch offices has been increased from three to five. They are located in Washington, Chicago, Kansas City, Minneapolis, and Spokane, each serving a smaller and more accessible area. Personnel in each branch office have been carefully trained in the procedures involved in handling the work.

Whereas the 1939 program was necessarily geared to the planting season, with consequent sharp peak loads of work occurring in the fall and spring, it has been possible under the 1940 program to schedule a uniform flow of work through the branch offices, with much of the preliminary work on actuarial data completed prior to the application-taking period. In turn, this has provided a more even distribution of work required of State and county committees. As a result of the improvements in the program and the fact that the Corporation now has a corps of trained, classified, and formally appointed employees, it is believed that a considerably larger load can be handled with fewer temporary employees.

## TAKING THE PROGRAM TO THE FIELD

### EARLY RESPONSIBILITY FOR THE ADMINISTRATION

Soon after the passage of the Federal Crop Insurance Act the five regional divisions of the A. A. A. agreed to assume a large part of the responsibility for administering the crop-insurance program through their established regional, State, and county officers in order



to develop crop insurance as an integral part of the ever-normal-granary plan for wheat growers. Coordinators were selected in the three main wheat-producing regions—western, north central, and southern—to integrate the crop-insurance activities with the other phases of the national agricultural program. Persons already employed in the other two divisions of the A. A. A. were assigned to coordinate the work there.

State crop-insurance supervisors were selected in 19 of the main wheat-producing States to devote all or most of their time to the crop-insurance program. These supervisors were appointed by the divisional directors, with the approval of the manager of the Federal Crop Insurance Corporation. In certain States where wheat was of minor importance a member of the State committee or some other regular employee in the State office assumed the duties of a State crop-insurance supervisor.

The State crop-insurance supervisors worked closely with the State committees, but in many instances exercised considerable independent judgment in the administration and supervision of the crop-insurance phase of the program within the State.

In each wheat county a crop-insurance supervisor was appointed by the county committee, with the approval of the State crop-insurance supervisor, to supervise the crop-insurance program and represent the Corporation in regard to the acceptance of premiums. Frequently, crop-insurance representatives were selected by the crop-insurance supervisor, with the approval of the county committee, to personally present crop insurance to the farmers in the county. The extent to which the crop-insurance representatives were used varied greatly from county to county and from region to region. Probably in the north-central region greater emphasis was placed on the personal solicitation by crop-insurance representatives than in any other area.

#### PRESENTATION OF THE PROGRAM

The crop-insurance program was officially launched at a national meeting at Omaha, Nebr., on April 19 and 20, 1938.

Following the Omaha meeting, a series of State meetings was held to acquaint State workers in the A. A. A., farm-organization leaders, extension workers, and others interested in the details of crop insurance as it applied to their respective areas. Initial State meetings conducted jointly by representatives of the A. A. A. and the Federal Crop Insurance Corporation were held in the various States of the respective regions.

District and county meetings were scheduled for the purpose of training county committeemen, county crop-insurance supervisors, county agents, farm leaders, and others in the administrative and educational features of the program.

Community educational meetings designed to acquaint local farmers with the purposes and advantages of crop insurance were conducted by the trained county people.

A few counties were successful in securing the signing of applications at these educational meetings or at a later sign-up meeting. On

the other hand, the majority of counties found that it was necessary to supplement the educational or sign-up meetings with an intensive personal-solicitation campaign carried on by crop-insurance representatives.

In most States the agricultural extension service was instrumental in assisting with the presentation of the crop-insurance program to the farmers by helping them grasp the philosophy and advantages of the program. Farm organizations did much to emphasize the advantages of crop insurance.

#### APPLICATIONS WRITTEN AND POLICIES COMPLETED

The period for writing applications extended from about July 1, 1938, in the early winter-wheat States until March 1, 1939, in the spring-wheat area. During that time approximately 305,000 applications were executed in 1,263 counties of 32 States. In securing these applications about 800,000 farmers were personally interviewed. Approximately 54 percent, or 165,000, of the applications matured into policies.

The A. A. A. State and county agricultural-conservation committees have displayed a genuine interest and have taken an extremely active part in carrying out this program with respect to the particular problems, conditions, and needs of each State and locality. Notable progress has been made by the committees in giving guidance and soundness to local administration of the program and in the correlation of the work so that each phase of the general agricultural program is given due emphasis.

#### APPRAISAL OF PARTICIPATION

Upon examination of the participation in the light of the objectives and policy of the program, it is apparent that the program in its first year has accomplished its purpose of demonstrating the possibilities of crop insurance on a Nation-wide basis. Some insurance was written in practically every community in which wheat is a significant crop. Enrollment in the program has been fairly representative of the various types of farming in the various areas in which wheat is grown. Participation has not been limited to any one area nor to farmers for whom wheat is a major crop.

Table 1 shows statistically, by States, the results obtained up to June 30. These statistics do not, however, reflect the many purely local factors which influenced the sign-up and payment of premiums, such as availability of wheat, cash, or credit, or the lack of them at the time premiums were due, the recent yield experience, local weather and soil-moisture conditions at the time applications were filed, or the method of local approach used in presenting the program to farmers.

TABLE 1.—Statistical report of crop-insurance program from beginning of operations in 1938 through June 30, 1939, by States<sup>1</sup>

State	Policies issued	Total insured acreage	Total insured production	Average insured production per policy	Total premiums		Average premium per policy	
					In bushels	In cash equivalent	In bushels	In cash equivalent
	<i>Number</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Dollars</i>	<i>Bushels</i>	<i>Dollars</i>
California.....	1,005	112,903	1,576,937	1,569.09	74,501	47,192.99	74.13	46.95
Colorado.....	1,443	72,166	585,842	406.00	78,364	35,195.37	54.31	24.39
Delaware.....	79	1,761	22,145	280.32	874	540.92	11.06	6.84
Idaho.....	1,727	135,998	2,150,260	1,245.08	81,440	32,988.78	47.16	19.10
Illinois.....	12,227	275,515	2,950,540	241.32	187,012	104,088.18	15.30	8.15
Indiana.....	11,185	168,864	2,063,010	184.44	145,435	82,583.78	13.03	7.38
Iowa.....	4,675	75,918	913,410	195.38	57,998	30,896.04	12.41	6.60
Kansas.....	15,017	892,682	7,520,983	500.83	778,352	376,588.40	51.83	25.07
Maryland.....	986	23,055	291,430	295.53	11,288	7,033.06	11.45	7.13
Michigan.....	5,072	52,310	774,148	152.63	31,997	18,530.63	6.31	3.65
Minnesota.....	10,529	309,677	2,644,913	251.20	199,078	118,958.79	18.96	11.29
Missouri.....	15,846	365,986	3,335,340	210.48	200,929	107,680.63	12.68	6.79
Montana.....	5,253	555,381	4,499,954	856.54	708,382	324,788.51	134.85	61.82
Nebraska.....	13,350	447,822	4,166,911	312.12	507,693	248,029.08	38.02	18.57
Nevada.....	34	667	13,121	385.91	525	262.75	15.44	7.72
New Jersey.....	29	380	5,778	199.24	190	130.45	6.55	4.49
New Mexico.....	111	9,362	81,724	736.25	13,644	6,371.21	122.92	57.40
New York.....	652	8,769	150,106	230.22	5,194	3,236.13	7.96	4.96
North Dakota.....	27,093	2,168,134	12,663,104	467.39	1,994,192	1,075,036.97	73.61	39.68
Ohio.....	10,314	131,078	1,807,177	175.22	136,543	83,357.07	13.24	8.08
Oklahoma.....	8,695	484,363	4,065,238	467.53	280,565	137,569.02	32.27	15.82
Oregon.....	679	96,365	1,420,294	2,092.77	64,818	32,990.69	95.46	48.60
Pennsylvania.....	2,301	30,432	448,927	195.10	16,599	9,929.32	7.21	4.31
South Dakota.....	10,035	503,755	2,679,764	267.04	695,643	378,438.95	69.30	37.71
Texas.....	3,691	355,312	2,543,280	689.21	397,167	200,429.96	107.60	54.30
Utah.....	454	33,631	523,863	1,153.90	23,039	7,628.37	50.75	16.80
Virginia.....	916	15,384	189,240	206.60	7,843	4,944.36	8.56	5.39
Washington.....	1,366	182,751	2,428,914	1,778.12	91,728	44,593.29	67.15	32.64
West Virginia.....	1	37	402	402.00	18	11.10	18.00	11.10
Wisconsin.....	184	1,544	16,836	90.95	1,352	757.83	7.34	4.11
Wyoming.....	322	24,137	214,410	665.87	29,947	12,281.38	93.00	38.14
Total.....	165,271	7,536,139	62,748,101	379.12	6,822,955	3,533,064.01	41.28	20.80

<sup>1</sup>The figures are tentative and subject to revision. Also, progress under the program is not uniform between States and areas on account of climatic and other conditions so that exact comparisons may be misleading.

#### ADJUSTMENT OF LOSSES

The adjustment of crop losses under the 1939 crop-insurance program was well started by June 30, 1939. Approximately 5,000 loss claims, representing more than 1,000,000 bushels of indemnities, were approved in the county offices by this date.

To assist the county committees in determining the amount of indemnities due, adjusters were selected by county committees to work under their direction. These adjusters were farmers living in the counties where they worked, and were familiar with the farming practices of individual farmers; the adjusters were fully acquainted with the operation of the general farm program and had the respect of farmers in the communities in which they worked. While the adjusters were not permitted to make commitments as to what the final settlements would be, their recommendations on adjustments were ordinarily followed, after careful examination by the county committees and review by the State and branch offices.

Where wheat was threshed, the determination of loss was a comparatively simple matter of arriving at a total production figure and determining the amount by which the total production fell below the insured production.



Probably the most difficult matter of the adjustment phase of this program came in connection with the first losses. Shortly after January 1, 1939, county committees began to receive notices of damage to the crop. Since acreage planted to wheat which was totally or substantially totally destroyed was permitted to be put to other uses with the approval of the Corporation, there were a great many requests for this privilege. This required appraisal of the potential yield of the wheat crop on the basis of the most favorable growing conditions prevailing until harvesttime. This phase of loss adjustment was particularly important and difficult to handle. Farmers who had requested release of acreage ordinarily wanted release at the earliest possible date so that the acreage could be planted to some other crop. It can easily be seen that it would be difficult at times to arrive at an agreement between the adjuster who had appraised the potential yield, and the insured. However, owing to the tactful manner in which this phase of the program was handled, agreements were reached in practically all cases.

While adjustment work will not be completed until the spring wheat crop is harvested, the large number of adjustments made to date has provided a basis for appraising this phase of the program. The Corporation has made a careful study of adjustments through audit of claims received and from field check-ups of individual cases, and finds that most adjustments are fair both to the individual farmer and to the Corporation. When the validity of the claim for indemnity has been established by local committeemen or adjusters, settlements have proceeded with dispatch. In most cases farmers have received indemnities within 2 weeks after the adjustment of their claims. It can be concluded that adjustments can be serviced equitably and speedily under the present system.

Obviously, the indemnities paid by the Corporation on the 1939 crop cannot be reported accurately until the adjustment work is complete.<sup>1</sup> Early estimates indicate that losses may run somewhat in excess of premiums collected, but this is subject to change depending on the outcome of the spring wheat crop. Crop losses in the winter wheat area have been particularly severe in those localities in which the highest acreage was insured.

Undoubtedly a contributing factor to the probability of an excess of indemnities over premium payments has been the adverse selection of risks in certain localities where the crop was deteriorating at the time the premiums were paid. This was not true in all areas, however, since some of the most extensive losses have occurred in areas where the crop appeared to be in better-than-average condition at the time premiums were paid. The fact that some selection occurred emphasizes the desirability of writing the insurance prior to seeding of the crop, thus eliminating any opportunity for adverse selection of risks on the basis of crop conditions.

#### MAJOR FIELD PROBLEMS

In the development and administration of any program on as broad a scale as the Federal crop-insurance program, certain diffi-

<sup>1</sup> As of September 1, with adjustment work complete in the Winter Wheat Belt and well under way in the Spring Wheat Belt, 21,000 indemnity claims had been approved for payment, involving disbursement of 4,301,563 bushels of wheat.

culties and problems would be expected to arise. Some of the major difficulties and the attention given to them are briefly summarized as follows:

(1) The inability of county personnel to inform the individual farmer definitely of the yield and premium rate for the farm at the time the applications were written discouraged many farmers from making application. This has been largely overcome in the 1940 crop-insurance program by the establishment of yields and premium rates on all farms prior to the time for writing applications. This enables the county committee to tell each grower what his average yield and premium rate are before he signs an application.

(2) The lapse of time between the signing of the application and the issuance of premium notices was an important factor causing failure of certain applicants to pay their premium. It required additional effort on the part of committeemen and crop-insurance supervisors to collect premiums after the farmer's initial interest had lagged. The 1940 regulations require that premiums be paid at the time the application is taken. The insurance transaction can be closed in one interview with the individual, thus shortening the procedure and effecting substantial saving in administrative cost in the counties.

(3) The inability of a great many of the farm operators to pay their premium in wheat or cash from their own resources and their inability to secure credit with which to pay premiums seriously interfered with the writing of policies. These financial difficulties were caused largely by extended droughts and low prices. Some private and Federal lending agencies were able to assist certain individuals to pay their premiums by taking a crop mortgage and an assignment of the policy, but even so, many were unable to pay the premium due.

The difficulties growers faced in financing premiums were materially relieved by Congress in March of 1939 when the Soil Conservation and Domestic Allotment Act was amended to permit growers to obtain advances for premiums against future payments to be earned under the agricultural-conservation program and other programs administered by the Department of Agriculture. This action was taken in time to enable a large number of growers in the Spring Wheat Belt to obtain insurance who otherwise could not have done so. It is expected to have widespread application in the 1940 program.

(4) At the time the program was taken to the field, there was no definite, clear-cut knowledge of how adjustments of losses were to be made, and this undoubtedly was a deterrent to a great many potential policyholders. Some farmers had the feeling that it might be well to let the program function for a year and see how losses were paid before they participated in the program.

The loss-adjustment procedure, which was taken to the field during the early part of the present calendar year, has worked out very satisfactorily. In general, county committees were apprehensive concerning the job of adjusting losses. The procedure developed, however, was so workable that they have had very little difficulty in adjusting losses. In the main, claims have been handled promptly, and farmers are well pleased. A great many of those who were in-



different about crop insurance in the fall of 1938 are now quite enthusiastic about the entire program. Since the 1939 loss-adjustment procedure has been quite successful, it is assumed that the adjustment pattern is rather definitely set and that only minor changes will need to be made to keep it in line with the changes in the regulations for the 1940 program.

(5) Yields were so low and premium rates so high on farms in the western part of the Great Plains that many producers did not feel it practical to buy insurance. Thousands of farms in that area have a history of production that does not permit coverage greater than 5 or 6 bushels an acre, and they have a loss experience of more than 2 bushels an acre.

In much of this area a marked improvement in wheat-production practices is noted in that the summer-fallow area is greatly expanded, the basin lister is now used more extensively, improved varieties of wheat are helping to meet problems of rust and drought, and timely seeding and harvesting with improved machinery have increased net yields. On the other hand, the production from much new land was included in the base period, whereas losses in soil fertility have already greatly lowered the productivity of some of the land.

The development of the special yield and rate procedure for 1940, which recognizes the influence of certain improved practices on yields, has been designed to meet to some extent these changing conditions. Consequently, where such practices and methods can be evaluated and reflected in yields and premium rates, increased participation can be expected. This problem is one requiring continued research and the accumulation of much information.

(6) Hesitancy to apply for insurance in certain low-risk, high-yielding areas has been noted. In the extreme West, fire is one of the main hazards affecting wheat crops, and farmers were inclined to continue to rely upon commercial fire insurance rather than change to the Government all-risk policy, because the commercial fire insurance covered "spot" or partial losses, while the Government insurance policy paid indemnities only when less than 50 percent or 75 percent of an average crop was produced.

Commercial rates covering the one hazard of fire appeared low in comparison with the more inclusive all-risk policy offered by the Corporation. However, the experience during 1939 with deficient rainfall throughout much of the Pacific coast area may have an influence on this attitude for 1940 and later years.

(7) It was originally anticipated that all insurance would be in force at planting time or shortly thereafter. However, this was not possible in all cases in the 1939 program for a number of reasons. It was necessary to obtain yield data from each grower at the time he applied, and the sharp peak in applications brought a great load of this work at one time. It was also necessary to compute the average yield and premium rate, and the cash equivalent after the application was received. Also, in the Winter Wheat Belt many growers had not received their acreage allotments at the time premiums were due; consequently many changes were required in applications, premium notices, and policies.

As a result of these unavoidable delays it was not possible in the Winter Wheat Belt to notify some growers of the amount of premium due until after the crop was planted and had started to grow, thus making it possible for growers to base payment or nonpayment of premiums on the condition of the crop. County committees were instructed to accept no premium payments from growers whose crops had deteriorated after the expiration of the original date at which their premium was payable. It was apparent that in some areas, however, particularly those in which premium rates were high, growers withheld premiums if the crop looked promising, or paid if it appeared to be losing ground. This problem has been partially eliminated from the 1940 program by the fact that rates are available well in advance of application taking, and it is possible and equitable to require that all premiums be paid before the crop is seeded.

#### CHANGES IN FIELD ADMINISTRATION

After the 1939 program had been under way for some months it became evident that closer coordination should be effected between the agricultural conservation program and the crop-insurance program. This could be accomplished by transferring more of the responsibility for the conduct of the program to State and county committees. Therefore, on January 3 the dual responsibility of State crop-insurance supervisors and county-insurance supervisors was abolished, and field work involving writing of applications and adjustment of losses was placed directly under the supervision of county committees, State committees, and regional divisions of the Agricultural Adjustment Administration. The branch offices of the Corporation were limited to work involving approval of yields and premium rates, auditing of policies and receipts, writing of policies, purchase and storage of grain, audit of adjustments, and computation of cash equivalent settlements.

This coordination which tied the crop-insurance program more closely into the regular plan of work of the county and State committees in administering the agricultural conservation program should result in many economies in administration by avoiding duplication of effort. It is felt that this synchronization of field work, together with the simplification of the plan, has made crop insurance a "straight line" operation, with delay and expense held to a minimum.

#### WHEAT OPERATIONS

An innovation of the wheat-crop insurance program was the principle of writing the insurance "in kind," and of carrying the insurance reserves of the Corporation in actual wheat in storage. This "all wheat" idea was carried out by calculating all insurable yields, premium rates, and indemnities in bushels of wheat. The Corporation undertook to accumulate wheat for the insurance reserve at the rate and to the total amount of the payment of premiums by farmers, and to reduce the reserve only through payment of indemnities.

The "all wheat" phase of the insurance program was designed to eliminate the effect of fluctuations of wheat prices from the basis

of the insurance. However, it was anticipated that this entirely new method, without parallel in previous commercial insurance, would develop some puzzling questions. One of the first tasks, in the computation of cash equivalent of premiums and indemnities, was that of perfecting a method of pricing wheat so as to reflect the price of wheat at the grower's local shipping point.

#### ESTABLISHING BASIC MARKETS

To achieve a uniform method of determining cash equivalents in any locality, a study was made of the normal movement of wheat to market and of the price-basing structure. From this it was possible to designate certain markets as basic markets and to assign to each the local points from which the wheat supply normally flowed. Schedules were compiled showing the freight rates on wheat from nearly every local station in the United States to the various basic markets. From these schedules it was possible to arrive at the cash equivalent of wheat at any local station on a given day by deducting from the basic market price the freight and handling charges per bushel. In some minor areas where freight rates were not a factor in determining local prices, the Corporation devised methods to reflect the actual prices growers received at local stations for their wheat.

In order to allow growers to pay premiums in wheat, the branch managers of the Corporation were authorized to designate warehouses which met the requirements of the Corporation as collection warehouses. All federally licensed warehouses were available as collection warehouses.

The administrative officials of the Corporation realized that local handling of wheat received from growers would involve some complications. In many cases individual premiums would amount to less than a carlot of wheat, and when a carlot of wheat was finally assembled at a country point it might grade mixed wheat, for which the Corporation would be penalized when the wheat was sold.

Further, local storage of wheat might jeopardize the reserve because of lack of uniformity of State warehousing laws and the difficulty of obtaining adequate protection for Corporation wheat stored in local warehouses. Some States have no warehousing laws, and in many States supervision of warehouses is almost wholly lacking.

However, by the time premiums were paid, the bulk of the wheat had moved to market, and less than 1 percent of the growers paid their premiums in wheat. This small number was handled by allowing county insurance supervisors to sell the warehouse receipts covering such wheat back to the warehouses issuing them. The prices obtained for this wheat were verified in the branch offices of the Corporation.

It is probable that a larger percentage of growers will pay premiums in wheat during the coming season since premiums are payable earlier in the season. However, the Corporation plans to follow the same course of selling such wheat back to local warehouses

and investing the proceeds in wheat in storage at selected warehouses since this permits handling of wheat receipts at the least expense and provides the greatest security for reserves.

It was considered necessary for the Corporation to place in its reserve a quantity of wheat equal to the total number of bushels collected as premiums in order to protect itself against price fluctuations. However, most of the wheat available for purchase by the Corporation was either at terminal or subterminal markets, and practically all of such wheat included in its value the freight billing behind it, and consequently had more value and cost more per bushel than the same amount of wheat at points where premiums were collected.

Accordingly the Corporation adopted the policy of supplementing the cash proceeds of premium payments with capital funds to enable the purchase of 1 bushel of wheat for each bushel of premium, in effect investing a part of such funds in paid-up freight and other charges which were an inherent part of the value of such wheat. These funds used from the capital are recovered as the wheat reserves are disposed of in payment of indemnities.

Table 2 summarizes the wheat transactions of the Corporation through June 30, 1939.

TABLE 2.—Wheat transactions through June 30, 1939

Item	Quantity	Value
	<i>Bushels</i>	<i>Dollars</i>
Kansas City branch:		
Purchases.....	3,391,054	2,155,263.84
Sales.....	1,126,765	808,232.93
Inventory June 30 (net cost).....	2,264,289	1,434,515.76
Minneapolis branch:		
Purchases.....	3,836,782	2,834,378.09
Sales.....	76,995	53,993.38
Inventory June 30 (net cost).....	3,759,787	2,780,699.55
Total:		
Purchases.....	7,227,835	4,989,641.93
Sales.....	1,203,760	862,226.31
Inventory June 30 (net cost).....	6,024,076	4,215,215.30

The Corporation had remaining on hand as of June 30, 6,024,076 bushels of wheat, costing \$4,215,215, or an average of 69.9 cents a bushel.

#### STANDARD STORAGE RATES

Up to June 30 the Corporation had entered into 61 standard storage agreements providing for storage of the Corporation's wheat at rates of one-thirtieth of a cent per day for the first 6 months of each year, with free storage for the remaining 6 months.

In the Kansas City branch-office area and in Washington and Oregon it has been possible for the Corporation to store its wheat at subterminal and country locations, but in the area served by the Minneapolis branch office it has been necessary to concentrate the wheat reserves at Minneapolis and Duluth-Superior. Most of the warehouses at country points in the spring-wheat area do not have sufficient space to store wheat when crops are moving, and State laws permit wheat to be shipped to terminal warehouses without canceling the outstanding warehouse receipts issued by the country warehouses.



Obviously, the Corporation could not store wheat under such conditions at country points in the spring-wheat area.

Some difficulty has been experienced in securing storage space in the Pacific Coast States and in the intermountain region due to the low storage rates prescribed by State laws. The usual rates are \$1 per ton for handling, including 30 days' free storage and 10 cents per ton per month for storage. On the basis of these rates, warehouses would receive 6.3 cents per bushel for the first year and 3.6 cents per bushel per year thereafter. Because of the fact that the handling charge does not recur each year, warehouses in these States insist that wheat be loaded out before the new crop starts moving. This made it impossible to secure storage on the long-term basis essential to the Corporation's needs.

Therefore, the Corporation was faced either with the necessity of paying higher storage rates than those prevailing in the Pacific Coast States and intermountain region, or of converting premiums received from these States into wheat in some other area. Because of the changes in the spreads between these wheat markets and those in other areas and the possibility of losses, it was deemed advisable by the Corporation to store a portion of its wheat in the intermountain area, and pay the same storage and handling rates to warehouses in this area as it does in other areas.

The board of directors of the Corporation has approved this plan, which should enable the Corporation to secure adequate storage space on the Pacific coast and in the intermountain region.

Attempts are being made to secure more storage space at country points in the area served by the Kansas City branch office. To this end, over 2,400 local elevators have been asked whether they would be interested in entering into a storage agreement with the Corporation. Replies are being received to this inquiry, and it is possible that this year the Corporation can have its wheat reserves in the Kansas City branch area more widely distributed.

Before entering into its wheat operations, the Corporation arranged for the cooperation of the officials in charge of the administration of the United States Warehouse Act to assist it in keeping advised as to the condition of its stocks stored in federally licensed warehouses. The supervisors of this administration render condition reports on this wheat and advise the branch managers of the Corporation when conditioning is necessary. When requested, they also make special examinations for the Corporation. This assistance has made it possible for the branch managers for the Corporation to know of the condition of such of the wheat reserves of the Corporation as are stored in federally licensed warehouses.

As of June 30, the Corporation had its stocks of wheat at 26 locations in the Kansas City branch area. The Minneapolis branch office had wheat stored at Minneapolis and Duluth-Superior; wheat was stored at 14 locations in Washington and Oregon.



The storage of the wheat of the Corporation, by States, is shown in the following tabulation:

*Wheat in store as of June 30, 1939*

Location	Quantity stored	Location	Quantity stored
Kansas City branch:		Kansas City branch—Continued.	
Iowa:	<i>Bushels</i>	Texas—Continued.	<i>Bushels</i>
Council Bluffs.....	105,000	Wichita Falls.....	50,000
Kansas:		Total.....	467,411
Arkansas City.....	80,000	Total Kansas City branch.....	2,264,288
Concordia.....	21,492		
Dodge City.....	190,000	Minneapolis branch:	
Hays.....	4,000	Minnesota:	<i>Bushels</i>
Hutchinson.....	265,090	Duluth.....	796,000
Wichita.....	250,000	Minneapolis.....	1,549,563
Yocemento.....	3,500	St. Paul.....	619,425
Zenith.....	6,000	Total.....	2,964,988
Total.....	\$19,992		
Missouri:		Oregon.	
St. Louis.....	176,987	Bourbon.....	672
Nebraska:		Condon.....	1,187
Central City.....	5,000	Grass Valley.....	1,806
Columbus.....	16,285	Ione.....	8,197
Cozad.....	1,675	Klondike.....	1,438
Grand Island.....	45,000	Rufus.....	1,179
Hastings.....	30,000	Wasco.....	3,820
Kearney.....	7,500	Total.....	18,299
Omaha.....	380,000	Washington:	
Schuyler.....	80,000	Asotin.....	5,491
Total.....	565,460	Fallon.....	2,817
Oklahoma:		Pomeroy.....	6,147
Cherokee.....	2,000	Spokane.....	84,704
Enid.....	115,000	Spring Valley.....	5,200
Homestead.....	10,000	Vancouver.....	15,000
Jugersol.....	6,000	Waverly.....	7,140
Oklahoma City.....	56,438	Total.....	126,499
Total.....	189,438	Wisconsin:	
Texas:		Superior.....	650,000
Amarillo.....	60,000	Total Minneapolis branch.....	3,759,786
Fort Worth.....	297,411	Grand total.....	6,024,074

**PAYMENT OF INDEMNITIES**

Farmers who have suffered losses to insured crops may request that their indemnities be paid in the form of wheat or the cash equivalent. The Corporation has endeavored to follow the grower's requests wherever possible, but certain practical considerations sometimes make it necessary for the Corporation to exercise its option to pay the grower in some other form than that which he has requested. In every case, of course, the grower receives the same value of indemnity, whether paid in wheat or cash.

If a grower receives his indemnity in "flat wheat," i. e., wheat without freight charges or freight billing behind it, at his local station, the number of bushels is the same as that stated in his indemnity claim. However, very few payments of this type can be made, since the Corporation receives premium payments and acquires its wheat after the bulk of the crop has moved to market and has little opportunity to acquire flat wheat at local stations.

Most of the reserves are stored in large elevators and have moved to the storage point by railroad. Thus they have acquired a higher

value per bushel than wheat at local stations. Consequently, in turning such wheat over to growers, the difference in value must be taken into account and adjusted by reducing the number of bushels to which the grower is entitled. This has caused some misunderstanding among growers, who have not taken into account that the wheat they received was worth more per bushel, because of its location at the basic market, and consequently, that it took fewer bushels to equal in value the number of bushels of wheat of their indemnity at the local station.

Another practical consideration is the fact that where individual indemnities call for less than a carlot of wheat, it is uneconomical for the grower to ship the wheat, and further, the splitting of warehouse receipts and freight bills into denominations necessary to pay indemnities in wheat would place a heavy burden on the Corporation, the elevators, and the railroads. Therefore, the Corporation has adopted a policy of paying indemnities in wheat, if so requested, but because of the difficulties present in making payments where less than a carlot of wheat was involved, such payments were discouraged when the quantity of wheat to be delivered was less than 1,000 bushels. An exception is made, of course, where flat wheat is available. In cases where the indemnity is less than 1,000 bushels, the insured grower is mailed a check equal to the value of his indemnity with a letter explaining why the Corporation feels it is not advisable to pay his indemnity in wheat as requested. A statement is sent along, showing at what point the Corporation can deliver wheat, the quantity the grower would receive, and describing the freight bills which would be delivered with the wheat. Then, if the grower desires, he can return the check and receive the wheat and the freight bills instead.

Where wheat has billing behind it for paid-up freight, the Corporation has endeavored to explain to growers that such wheat carries the privilege of moving on to the ultimate market at a substantial saving in freight costs over local movement from the same point, and that this increases the value of the wheat per bushel by the amount of the saving in freight. Where such wheat is delivered to the grower, the number of bushels of indemnity is calculated to give him the same value as if he received the cash equivalent, or flat wheat at his local station.

The Corporation anticipated the difficulties incident to paying indemnities in wheat and has acquired as much flat wheat as possible. Also, it is endeavoring to secure more storage space at country locations. However, the opportunities in this respect are limited by the fact that the Corporation purchases its wheat after the principal movement to market and because there is little or inadequate supervision of warehouse facilities at country points in many States.

## THE ACTUARIAL BASIS FOR WHEAT-CROP INSURANCE

### BASIS FOR THE 1939 PROGRAM

County figures for average yields and average loss experience were available when the program started as the result of research carried on by the Bureau of Agricultural Economics prior to the organization of the Corporation. The loss-experience figure for each county was the result of analysis of a sample of individual farms based on

the 6 years 1930-35, and adjusted to the 10-year (1926-35) basis through the use of county yields prepared by the Division of Crop and Livestock Estimates. The annual-yield figure for the county was the average of these yield figures for the 10-year period 1926-35.

#### YIELDS AND RATES FOR INSURANCE CONTRACTS

For the Federal crop-insurance program, each insured farm had a separate yield and separate premium rate. In the 1939 program, the yield for the farm was the average of the yields per seeded acre on such farm during the 6-year period 1930-35, adjusted to reflect the experience for the 10-year period 1926-35. If annual-yield records were not available for the farm, the average yield was appraised.

The premium rate for the farm was determined by first computing the loss experience for such farm for the 6-year period 1930-35 from the annual-yield data, and adjusting such loss experience to the 10-year period 1926-35. The 10-year loss experience for the farm was then averaged with the 10-year loss experience for the county to determine the premium rate for the farm.

Yields and premium rates vary widely, depending on the productivity and the production risks on the farm. Some idea of the range in yields and rates can be obtained from table 3.

TABLE 3.—*Representative counties showing variations in yields and premium rates*

County and State	10-year average yield for county	Average premium for—	
		75-percent coverage	50-percent coverage
	<i>Bushels</i>		
Sandusky, Ohio.....	21.7	1.1	0.4
Golden Valley, N. Dak.....	8.9	1.6	.8
Morton, Kans.....	7.7	2.3	1.5
Whitman, Wash.....	26.4	.5	1.2
York, Pa.....	20.2	.6	1.1

<sup>1</sup> Policies subject to minimum premium rate.

It became apparent early in the application period that it would be impossible to obtain for the majority of the farms reliable and applicable annual wheat-yield records for each year of the base period. Consequently, most of the applications were being submitted on the basis of an appraisal of the average-yield and average-loss experience. Moreover, county committees were having difficulty in making proper appraisals. There was a strong tendency to appraise all farms at a figure near the county average rather than to appraise each farm on its own merits.

To meet this difficulty a procedure was devised in July 1938 by which the county committees selected key farms in the county for which historical data were available and determined yields and loss experience for such key farms and located them on a county map. Appraisals of yields and loss experience submitted thereafter were required to be based on one or more of such key farms rather than upon the county average figures. This resulted in a substantial improvement in the figures submitted on an appraisal basis.

After the application period, the yield and loss experience submitted on applications were analyzed, and the averages were compared with the average yields and loss experience as shown in the actuarial tables for the sample farm and with the Division of Agricultural Statistics' yields for the same years.

It appeared that the Corporation in the 1939 program wrote insurance for higher yields, on an average, and lower premiums, on an average, than accumulated data indicate should have been done. Field representatives believe that the farmers taking insurance were better-than-average farmers and, if such was the case, the higher average yields and lower premiums may have been justified. It is undoubtedly true, however, that in some counties the insured yields were too high, and the premium rates too low. Provision has been made in the 1940 program to factor yields and premium rates to meet a county check figure. This, as described later, will provide an automatic control so that the difficulty encountered in the 1939 program will not recur.

Another troublesome problem was the determination of yields and rates on farms where such special practices as summer-fallow had been followed in recent years. Applicants for insurance were unable to furnish long-time records of yields on summer-fallow to compute average yields and premium rates, either because they had not followed such practice during the full length of the base period or because they had not kept separate records on the portion of their wheat acreage that was seeded following fallow. Practically the only data available were experiment-station records, and usually the yields shown in these records could not be used in establishing yields for individual farms in the area. Furthermore, the program last year provided for only one rate and one yield so that if an applicant was planning to seed wheat both on fallowed and nonfallowed land the yield and rate had to be based, in part, on the wheat acreage under each practice. Thus, the establishment of yields and premium rates for summer-fallow and continuous cropping was not very satisfactory.

In the 1939 program there was also some dissatisfaction and criticism in counties because the farms had one yield for crop insurance and another for the agricultural-conservation program.

#### APPRAISAL OF THE 1939 PROGRAM

Naturally a single and as yet incomplete year of operation has not made possible detailed studies of the effects of the crop-insurance program. However, it has been possible to draw certain broad conclusions as to progress made toward the major objectives of the program, as follows:

(1) In its first year, the wheat-crop-insurance program has accomplished its principal purpose of demonstrating the possibilities of an all-risk insurance program for wheat. Participation has been sufficiently extensive and varied to provide a Nation-wide test of the program.

(2) The basic principles have been found to be practicable. In improving the program for 1940 operation, it was found unnecessary to make any amendments which would modify the basic principles of insurance underlying the program, such as calculation of yields and rates on the basis of past experience of each farm, of carrying the



insurance reserve in actual grain in storage, and of limiting the insurance to a maximum of 75 percent of the average yield.

(3) While it will require continued analysis and correction for a number of years to refine the actuarial data, it appears that they provide a workable basis for wheat-crop insurance. The records accumulated in 1939 and to be accumulated in subsequent years will develop a more complete knowledge than has existed regarding the actual risks of growing wheat on individual farms. It is felt that the technique of assembling and applying actuarial information has been developed to a point where it is entirely workable and that methods so developed may be the basis for assembling and applying actuarial data if they should be required for crops other than wheat.

(4) To make insurance available to practically all wheat producers and to have a wide geographical distribution of risks, the program has been presented in all except a few very minor wheat-producing areas. The cost of operation under this plan is somewhat higher than it would be if limited to the major wheat areas. It is felt that an amount of participation, double or triple that in 1939, can be handled without exceeding the present appropriation available for administration.

It should be considered that during the first year the Corporation carried, in addition to the usual current operating expenses, a number of expenses which in commercial practice would be amortized over a long-time period as capital and development expense. Included in this expense were such items as the organization of a new program, original research, and development of basic actuarial material, training of personnel, purchase of equipment, and informational and educational programs to introduce the idea of crop insurance. In addition, part of the appropriation was used for extensive research as to the possibilities of crop insurance for other crops such as cotton and corn. Because of this capital investment in crop insurance, the expenditures of the Federal Crop Insurance Corporation in the 1939 program cannot be compared directly with the 1939 participation secured. Cost of administration of the program per farmer insured can best be reduced by increasing the participation, and it is believed that the development work undertaken in 1939 and the demonstration of the 1939 program will increase the participation materially in future years.

### IMPROVEMENT OF 1940 PROGRAM

The experience gained in the 1939 program has made it possible to introduce many improvements in the 1940 program which should result in greater economy of operation, greater participation, and more effective application of the basic crop-insurance principles.

### THE 1940 ACTUARIAL APPROACH

The actuarial plans devised for the 1940 program were an attempt to meet some of the problems that were brought to light in the 1939 program. To improve the timing of the work so that premiums could be collected at the time the application was accepted in the county office, plans were made to set up yields and rates on listing sheets in advance of the application period.



The experiences of the first year indicated that the Corporation should recognize that the appraisal of yields and rates was the major, rather than the minor, method of determining the basis for insurance. The plan developed in the 1939 program of using key farms for appraisal purposes was adopted as the keystone of the yield and rate structure for 1940.

Three types of listing sheets were prepared: (1) One for key farms, based primarily on historical records of annual yields; (2) one for other farms for which historical records of annual yields would be used as the basis for applications for insurance; and (3) one for farms on which average yields and premium rates would be appraised. The key-farm listing sheets were prepared first. The yields and premium rates were computed on separate work sheets by the same method of computation as was used in the 1939 program. The data for the key farms, when ready, were submitted through the State offices to the branch offices for approval. Average yields and premium rates for other farms for which annual yields were submitted on a historical basis were prepared in the same manner and transmitted to the branch office. There were relatively few such listing sheets. After the key-farm listing sheets were approved, county offices appraised yields and rates for all allotment farms in the major wheat counties, using the key farms as the basis for appraisal. These were to be transmitted through the State offices to the branch offices for approval.

In the 1939 program the basis for insurance was the 6-year period 1930-35, for which individual farm records were obtained, adjusted to the 10-year period 1926-35. For the 1940 program, the years 1936, 1937, and 1938 have been included, using the 13-year period as the basis for writing insurance. In the Great Plains region, where extreme droughts have occurred in the base period, the 13 years were extended by an adjustment factor to reflect the experience for the 20-year period 1919-38.

#### ONE OPERATION

To obtain insurance in 1940, the grower simply fills out an application with information as to intended plantings for 1940. The yield and rate for his farm are already known. The premium is payable at the time the application is signed and may be paid by: (1) Delivering a warehouse receipt for wheat equivalent in value to the amount of wheat specified in his application; (2) paying in cash the equivalent of the amount of wheat specified as the premium at the current market price; or (3) authorizing an advance against future payments to be earned under the A. A. A. programs. Premiums must be paid at the time the application is signed. After the grower has paid his premium, nothing further is required of him, except to report the actual acreage seeded, and to notify his local committee in case of damage to an insured crop.

#### NO FORMAL INSURANCE POLICY

The insurance contract will consist of the application, the acceptance of the application by the Corporation, and the regulations relating to the 1940 program.

## APPLICATIONS MUST BE MADE BEFORE PLANTING

Applications will be accepted only prior to the planting of the crop to be insured. Dead lines will be set for various areas with respect to the last date on which applications may be received in the county offices. Growers may apply up to the date of the dead line, or to the planting of their crop, whichever is earlier. This restriction has been made to assure that there will be no opportunity to insure a crop after it gets off to a poor start, thus placing both the Corporation and the individual grower on the same ground with respect to knowledge of the prospects of the crop to be insured.

## EQUIVALENTS WILL BE COMPUTED IN COUNTIES

It was found feasible to compute the cash equivalents of premium payments in counties rather than in the branch offices, thus making it possible to rule out a certain amount of delay, correspondence, and extra forms involved in transmitting applications to branch offices for determining the premium due. Pricing schedules will be furnished to county offices regularly for computation of cash equivalents.

## IMPROVED PRACTICES RECOGNIZED

It was found that an average yield based on past history of the farm did not take into account recent improvements in methods of farming in some areas, such as irrigation and summer fallowing, which have been found to increase the average yields and to decrease the amount of risk involved. In order to give due weight to the use of these special practices, the Corporation has adopted a special-practice procedure under which the effect of certain improved methods in certain areas may be measured and the possibility of higher yields and reduced risks given due weight in determining the insurable yields and premium rates for farms on which such practices are used.

As a result of these and other improvements it is felt that it will be possible to conduct the 1940 program with greater accuracy, with fewer forms, and with less work and expense per insured farm.

## NEED FOR FURTHER RESEARCH

The experience of 1939 points the way to the need for and the possibility of certain detailed studies which should be undertaken in order that scientific data may be accumulated to measure the potentialities of the principles of crop insurance. Some of the studies that should be considered are:

(1) *Analysis of production methods and their incidence on insurance yields and premium rates.*—As the program now operates, it relies largely on the past history of yields and losses during a base period. Undoubtedly this is a good way to measure variations caused by changing weather conditions reflecting the effect of natural hazards. However, producers may increase yields and reduce hazards by use of new varieties of wheat that are resistant to certain natural hazards, by the use of improved types of machinery which increase the possibilities of timeliness in performing certain farming operations, and the use of new methods of cultivation and other factors which have an effect on yields and, consequently, on crop insurance.

The Corporation has considered certain improved types of farming such as irrigation and summer-fallow in the establishment of insurable yields and premium rates. However, more data are needed to measure accurately the actual effect of these various production methods on the risk of growing wheat on individual farms. It can be seen that the development of applicable information along this line, tied in with insurance, may prove to be a powerful stimulus toward the adoption of better farming methods since through crop insurance the grower is guaranteed that he will receive at least a substantial part of a reward for improved methods.

(2) *Analysis of losses and methods of adjustment of losses.*—The Corporation should undertake an operative study of adjustment of losses to improve its present methods of adjustment and to discover any lack of uniformity of determining salvage, cause of loss, etc. It would seem highly important that each loss be analyzed in order that the Corporation may set up definite standards of adjustment and may assemble useful information regarding the frequency of various causes of loss, the effect of various hazards, and methods for keeping such losses at a minimum. It is entirely possible that, because of its opportunity to accumulate a large amount of data as to causes of loss on individual farms all over the United States, the Corporation may be able to produce valuable information on the effect of a number of the Department's programs for improvement of farming methods and may also be able to show the way in which the cost of crop failure can be reduced for wheat farmers in general.

(3) *Analysis of the most economical form of capital reserve.*—It was apparent at the time the basic plan of crop insurance was drawn up that the wheat reserve accumulated through payment of premiums would fluctuate considerably from year to year, increasing in good crop years, when premiums collected would exceed indemnity requirements, and decreasing in poor crop years, when premiums would be less than requirements for indemnities. To balance the wheat reserve, the Corporation was provided with an initial capital fund of \$20,000,000 on the theory that this fund could be used to pay losses if they occurred before an adequate reserve was built up from premiums. However, it is probable that those years in which the capital funds are required to pay losses will be years of generally poor crops, with a tendency toward higher prices. Consequently, a capital solely in the form of dollars might suffer to some extent from price changes; that is, it might require more money to buy the necessary wheat than it would if bought at the time premiums were paid. It has been suggested that the Corporation might to some extent protect its capital against such a contingency by investing a portion of it in actual wheat in storage to maintain capital in the same form that would be required for indemnity payments.

It is believed that an exhaustive study should be made to develop facts regarding the most economical form of capital funds, which would aid in establishing and maintaining a definite long-time policy in this respect.

(4) *Evaluation of insurable yields and premium rates in connection with developing conditions.*—Since the actuarial basis of the program draws from past experience, there exists a possibility that such rates as may be established may not be correlated with changing conditions or may not coordinate with the aims and purposes of other



national farm programs. For example, continuance of present rates in some areas might tend to subsidize production of wheat on marginal lands, thus working against the interests of programs that are designed to retire such lands from uneconomical production. It is possible, also, that the crop-insurance program might tend to "freeze" wheat production at figures not in accord with a good national policy. The Corporation might well give due consideration to the effect of insurance on new conditions to aid in developing policies correlating the program more closely with other land-use and adjustment programs.

5. *Forecasting losses and yields prior to occurrence.*—It is very important to the Corporation that it be apprized of probable losses at the earliest possible date in the growing season, since such information will assist the agency to locate its reserves with a view to the most economical distribution of indemnities and to locate personnel properly to handle this phase of the program. The experience of the past year indicates that there is definite need for forecasts of probable losses to keep the officers of the Corporation sufficiently informed to maintain the most effective organization. A number of studies along this line are being made by several agencies of the Department of Agriculture and by various State experiment stations and colleges. The Corporation should assemble such information as these projects develop and coordinate it as the basis of a system for forecasting losses applicable to its needs.

6. *Study of effect of crop insurance on wheat income.*—Tentative research has indicated that the stabilization of growers' wheat production will actually result in an appreciable net increase in the buying power of wheat growers. This is important from the standpoint of educating wheat growers and the general public to the advantages of crop insurance. Information regarding this aspect of crop insurance is as yet fragmentary and tentative. A uniform long-time study based on actual income experience should be organized in the principal wheat States.

### FINANCIAL REPORT

Under Public, No. 644, Seventy-fifth Congress, Department of Agriculture Appropriation Act, 1939, approved June 16, 1938, funds not to exceed \$20,000,000 of the unobligated balance of the appropriation made in the Department of Agriculture Appropriation Act, 1938, approved June 29, 1937, under the head of "Conservation and Use of Agriculture Land Resources, Department of Agriculture" were made available for use by the Secretary of the Treasury during the fiscal year 1939, at such times and in such amounts as the Secretary of Agriculture may request, for the purpose of subscribing to and paying for the capital stock of the Federal Crop Insurance Corporation of the United States of America, as provided for in section 504 of the Federal Crop Insurance Act, approved February 16, 1938. The payment of said stock by the Secretary of the Treasury shall, with the approval of the Secretary of Agriculture, be subject to call in whole or in part by the board of directors of the Federal Crop Insurance Corporation, and shall be effected by transfer of funds on the books of the Treasury Department to the credit of the Corporation, the funds so transferred to be subject to requisi-

tion by the Corporation with the approval of the Secretary of Agriculture.

The Federal Crop Insurance Act, as amended, section 510, states:

All money of the Corporation not otherwise employed may be deposited with the Treasurer of the United States or in any bank approved by the Secretary of the Treasury, subject to withdrawal by the Corporation at any time, or with the approval of the Secretary of the Treasury may be invested in obligations of the United States or in obligations guaranteed as to principal and interest by the United States.

During the fiscal year ended June 30, 1939, \$10,000,000 of the subscription to the capital stock was called and deposited with the Treasurer of the United States to the credit of the Federal Crop Insurance Corporation. This fund is being used as a revolving working fund in carrying out the operations of the Federal Crop Insurance Corporation.

The revolving working fund is being used for a twofold purpose: (1) To permit the purchase of wheat simultaneously with the collection of premiums, and (2) to allow the Corporation to purchase in approved storage facilities, bushel for bushel, the quantity of wheat represented as premiums in terms of bushels for the Corporation's insurance contracts. Because the wheat reserve is in balance, in terms of wheat, with premium collections, the Corporation avoids almost entirely the possibility of the gain or loss through the price changes in the market value of wheat.

No call has been made on the Secretary of the Treasury for the balance of the subscription to the capital stock amounting to \$10,000,000. This is based on the theory that: Since the Federal Crop Insurance Corporation is wholly a Government-owned corporation, there would be no advantage gained under the current fiscal position of the Government, by investing this \$10,000,000 in obligations of the United States; and since the administrative and operating expenses of the Corporation are paid out of monies appropriated annually by Congress, the Corporation does not need the interest which would accrue to it from such investments. It should be remembered that the indemnities for crop losses are to be borne out of the insurance premiums paid by the insured and that the necessity for using capital funds to meet indemnity payments will only arise in those years when crop conditions are such as to make indemnity payments exceed premium collections.

The administrative and operating expenses of the Corporation are paid from money appropriated by Congress for that purpose. The accounting records for these funds are maintained along the lines of the regular governmental encumbrance system prescribed by the General Accounting Office.

A double-entry accounting system has been installed to record the insurance operations. The accounts reflect both the recordation of the cash transactions and the wheat transactions. This double recording is necessary because of the fact that the Federal Crop Insurance Act authorized the Corporation to accept premiums either in wheat or the cash equivalent thereof and to pay indemnities either in wheat or the cash equivalent thereof.

The situation of the Corporation as of June 30, 1939, is summarized in the following reports: Balance sheet; administrative expenses (table 4); insurance reserve—wheat; wheat in store; wheat-purchase commitments (table 5); wheat-sales commitments (table 6);



operating reserve; premium payments, insured acreage, and insured production (table 7); and indemnity payments (table 8).

## BALANCE SHEET AS OF JUNE 30, 1939

*Assets***Cash:**

With Treasurer of United States:	
Grain account-----	\$7, 294, 714. 39
Premiums and other receipts-----	829, 905. 37
On hand and in banks-----	136, 626. 74
Total-----	8, 261, 246. 50

Capital fund—unrequisitioned from United States Treasury----- 10, 000, 000. 00

**Accounts and other receivables:**

Due from completed sales of wheat-----	12, 892. 75
Due from uncompleted sales of wheat-----	39, 562. 50
Miscellaneous-----	211. 75
Total-----	52, 667. 00

**Other assets:****Wheat inventory:**

In store (stated at cost value)-----	4, 215, 215. 30
In transit (purchase commitments)-----	107, 317. 83

        Total----- 4, 322, 533. 13

**Deduct:**

Sales commitments-----	39, 562. 50
------------------------	-------------

Net inventory----- 4, 282, 970. 63

Refundable inbound switching----- 1, 140. 68

    Total----- 4, 284, 111. 31

    Total assets other than interagency----- 22, 598, 024. 81

**Interagency assets:****Due from governmental corporations or agencies:**

Agricultural Adjustment Administration A. C. P. advances-----	671, 024. 66
Farm Security Administration-----	3, 994. 17

        Total----- 675, 018. 83

    Total assets----- 23, 273, 043. 64

*Liabilities***Other liabilities:****Accounts payable:**

Wheat purchases-----	107, 317. 83
Miscellaneous-----	1, 825. 73

        Total----- 109, 143. 56

**Reserves:**

    Operating reserve----- 3, 163, 900. 08

        Total liabilities----- 3, 273, 043. 64

Capital----- 20, 000, 000. 00

    Total liabilities and capital----- 23, 273, 043. 64

NOTE.—The policies issued or to be issued by the Corporation number 165,271, with an insured production of 62,748,101 bushels. Actuarially, it is estimated that the contingent liability of the Corporation to cover loss will not exceed 10 percent of the insured production; however, the actual liability for any year might be greater or less than the actuarial estimate of the contingent liability.

TABLE 4.—Administrative expenses for the fiscal years ended June 30, 1938 and 1939

Item	For the fiscal year ended—		Total
	June 30, 1938	June 30, 1939	
Personal services.....	\$41,576.31	\$1,254,199.77	\$1,295,776.08
Supplies and materials.....	38,994.79	87,578.70	126,573.49
Communication service.....	1,491.65	19,599.92	21,091.57
Travel expense.....	14,857.85	55,525.86	70,383.71
Transportation of things (service).....	893.64	11,422.71	12,316.35
Printing and binding.....	29,289.19	67,759.02	97,048.21
Advertising and publication of notices.....		114.59	114.59
Heat, light, power, water, electricity, etc.....	13.31	330.09	343.40
Rent.....	1,658.38	45,204.60	46,862.98
Repairs and alterations.....	419.02	350.38	769.40
Special and miscellaneous current expenses:			
Administrative expense of local associations, A. A. A.....		1,175,000.00	1,175,000.00
Storage.....		340,056.63	340,056.63
Miscellaneous.....	2,483.31	30,874.31	33,357.62
Equipment.....	87,637.54	85,279.22	172,916.76
Total.....	219,314.99	3,173,295.80	3,392,610.79
Budget reserve.....		20,000.00	20,000.00
Amount reserved for transfer to other departments.....		120,000.00	120,000.00
Reallotted:			
Office of the Secretary.....		42,500.00	42,500.00
Office of the Solicitor.....	15,968.90	58,690.00	74,658.00
Bureau of Agricultural Economics.....		78,000.00	78,000.00
Agricultural Adjustment Administration.....		480,000.00	480,000.00
Administrative expense of local associations, A. A. A.....		1,000,000.00	1,000,000.00
Total.....	235,282.99	4,972,485.80	5,207,768.79
Unencumbered balance.....	729,717.01	527,514.20	1,257,231.21
Grand total.....	965,000.00	5,500,000.00	6,465,000.00

## INSURANCE RESERVE: WHEAT, FROM JULY 1, 1938, TO JUNE 30, 1939

	Bushels
Net premium bushels collected, including deposits (table 7).....	6,822,956
Less indemnities paid (table 8).....	791,513
	6,031,443
Deposits for 1940 premiums deducted from indemnities paid.....	6,928
Net insurance reserve, wheat as at June 30, 1939.....	6,024,515
Represented by:	
Purchases wheat, completed.....	7,227,835
Deduct: Sales of wheat, completed.....	1,203,760
Wheat in store (schedule 1).....	6,024,075
Add: Purchases in transit (table 5).....	132,163
Deduct: Sales uncompleted (table 6).....	6,156,238
Inventory as at June 30, 1939.....	55,000
	6,101,238

The Corporation shows, as of June 30, 1939, a long wheat position of 76,723 bushels, 16 pounds. The long and short wheat position of the Corporation changes from day to day as more premiums are being reported and collected, and as indemnities are being paid.

## WHEAT IN STORE AS OF JUNE 30, 1939

(Schedule 1)

	Bushels
Hard Red Winter-----	2, 016, 302
Soft Red Winter-----	176, 987
Dark Hard Red Winter-----	141, 500
Hard Amber Durum-----	396, 000
Dark Northern Spring-----	2, 962, 585
Heavy Dark Northern Spring-----	208, 657
Soft White-----	66, 836
Western White-----	24, 264
Hard White-----	30, 945
Total wheat inventory-----	6, 024, 075

TABLE 5.—Wheat-purchase commitments as of June 30, 1939

Purchase contract No.	Vendor	Quantity	Grade	Amount
		<i>Bushels</i>		
M-230-----	Commodity Credit Corporation.	17, 101	No. 1 Hard White-----	\$14, 365. 06
M-243-----	Farmers Union Grain Terminal Association.	1, 343	No. 1 Heavy Dark Northern Spring.	1, 124. 76
M-242-----	do-----	65, 000	No. 1 Dark Northern Spring.	56, 375. 00
M-245-----	Commodity Credit Corporation.	5, 966	do-----	4, 846. 98
	Total-----	70, 966		61, 221. 98
M-246-----	Farmers Union Grain Terminal Association.	10, 000	No. 2 Hard Amber Durum	6, 875. 00
M-247-----	Cargill, Inc.-----	25, 000	No. 2 Hard Amber Durum	17, 838. 75
	Total-----	35, 000		24, 713. 75
S-27-----	Commodity Credit Corporation	7, 753	No. 2 Soft White-----	5, 892. 28
	Total-----	132, 163		107, 317. 83

TABLE 6.—Wheat-sales commitments as of June 30, 1939

Sales contract No.	Vendee	Quantity	Grade	Amount
		<i>Bushels</i>		
KC-101-----	Public Terminal Elevator Co.	25, 000	No. 2 Hard White-----	\$16, 875. 00
KC-105-----	Producers Grain Corporation.	10, 000	do-----	8, 612. 50
KC-106-----	Nebraska Consolidated Mills.	10, 000	No. 3 Hard White-----	6, 700. 00
KC-107-----	Garrison Milling Co.	10, 000	No. 2 Hard White-----	7, 975. 00
	Total-----	55, 000		39, 562. 50

## OPERATING RESERVE FROM JULY 1, 1938, TO JUNE 30, 1939

Net premiums paid and accrued (cash equivalent, including deposits)-----	\$3, 528, 440. 55
Proceeds from sale of warehouse receipts paying premiums-----	4, 623. 46
Net proceeds from sale of wheat:	
Sales price-----	\$862, 226. 31
Less cost of sales-----	774, 426. 63
	87, 799. 68
	3, 620, 863. 69
Deduct indemnities paid (cash equivalent)-----	456, 963. 61
Total operating reserve-----	3, 163, 900. 08

As the premiums for the insurance coverage have been collected on the basis of bushels of wheat and the indemnities are and will be computed and paid on the basis of bushels of wheat, the above operating reserve does not represent the insurance reserve, which is set forth on a separate schedule (p. 26). This reserve represents a balancing element between the cash equivalent of the wheat collected, purchased, sold, and paid out in indemnities.

TABLE 7.—*Premium payments, insured acreage, and insured production for principal classes of wheat grown by States as of June 30, 1939*

Class of wheat and State	Policies <sup>1</sup>	Premium payments received <sup>2</sup>	Wheat acreage insured <sup>3</sup> <sup>4</sup>	Total insured production
<b>Soft red winter:</b>	<i>Number</i>	<i>Bushels</i>	<i>Acres</i>	<i>Bushels</i>
New York.....	652	5, 194	8, 769	150, 106
Pennsylvania.....	2, 301	16, 599	30, 432	448, 927
New Jersey.....	29	190	380	5, 778
Delaware.....	79	874	1, 761	22, 145
Maryland.....	986	11, 288	23, 055	291, 430
Virginia.....	916	7, 843	15, 384	189, 240
West Virginia.....	1	18	37	402
Michigan <sup>5</sup> .....	5, 072	31, 997	52, 310	774, 148
Ohio.....	10, 314	136, 548	131, 078	1, 807, 177
Indiana.....	11, 185	145, 435	168, 864	2, 063, 010
Illinois.....	12, 227	187, 012	275, 515	2, 950, 640
Missouri.....	15, 846	200, 929	365, 986	3, 335, 340
Total.....	59, 608	743, 927	1, 073, 571	12, 038, 343
<b>Hard red winter:</b>				
Iowa.....	4, 675	57, 998	75, 918	913, 410
Nebraska.....	13, 350	507, 693	447, 822	4, 166, 911
Kansas.....	15, 017	778, 352	892, 682	7, 520, 983
Oklahoma.....	8, 695	280, 566	484, 363	4, 065, 238
Texas.....	3, 691	397, 167	355, 312	2, 543, 280
Wyoming.....	3, 322	29, 947	24, 137	214, 410
Colorado.....	1, 443	78, 364	72, 166	585, 842
New Mexico.....	111	13, 644	9, 362	81, 724
Utah.....	454	23, 039	33, 631	523, 863
Total.....	47, 758	2, 166, 770	2, 395, 393	20, 615, 661
<b>Hard red spring and durum:</b>				
Wisconsin.....	184	1, 352	1, 544	16, 836
Minnesota.....	10, 529	199, 678	309, 677	2, 644, 913
North Dakota.....	27, 093	1, 994, 192	2, 168, 134	12, 663, 104
South Dakota.....	10, 035	695, 643	503, 755	2, 679, 764
Montana.....	5, 253	708, 382	555, 381	4, 499, 954
Total.....	53, 094	3, 599, 247	3, 538, 491	22, 504, 571
<b>White:</b>				
Nevada.....	34	525	667	13, 121
Idaho.....	1, 727	81, 440	135, 998	2, 150, 260
Washington.....	1, 366	91, 728	182, 751	2, 428, 914
Oregon.....	679	64, 818	96, 365	1, 420, 294
California.....	1, 005	74, 501	112, 903	1, 576, 937
Total.....	4, 811	313, 012	528, 684	7, 589, 526
Grand total.....	165, 271	6, 822, 956	7, 536, 139	62, 748, 101

<sup>1</sup> The number of policies includes those issued and those to be issued on which premiums have been paid.

<sup>2</sup> Represents wheat premiums whether received as wheat or as the cash equivalent.

<sup>3</sup> Includes acreage of farms for which only the landlord's share or the tenant's share of the crop is insured.

<sup>4</sup> Subject to final determination of acreage seeded.

<sup>5</sup> Soft red winter wheat grown but not the principal class.



TABLE 8.—*Indemnity payments by States, as of June 30, 1939*

State	Indem- nities paid	Quantity	Amount	State	Indem- nities paid	Quantity	Amount
	<i>Number</i>	<i>Bushels</i>	<i>Dollars</i>		<i>Number</i>	<i>Bushels</i>	<i>Dollars</i>
California.....	45	55,729	37,806.43	Ohio.....	41	6,050	4,394.51
Colorado.....	32	8,782	4,214.62	Oklahoma.....	385	68,994	39,372.99
Illinois.....	30	7,523	5,123.53	South Dakota.....	22	11,721	7,465.92
Indiana.....	30	5,620	4,081.92	Texas.....	1,033	438,494	249,013.34
Iowa.....	34	3,633	2,028.84	Virginia.....	1	958	814.30
Kansas.....	245	94,258	53,013.61	Washington.....	3	848	423.23
Michigan.....	9	643	443.63	Wisconsin.....	9	660	430.52
Minnesota.....	7	625	429.62	Wyoming.....	3	398	189.17
Missouri.....	14	1,614	981.44				
Nebraska.....	529	33,352	45,911.16	Total.....	2,473	791,513	456,963.61
New Mexico.....	1	1,611	824.83				





